THE CITY OF SAN DIEGO

HOW TO OBTAIN A PERMIT FOR

Residential Decks

CITY OF SAN DIEGO DEVELOPMENT SERVICES
1222 FIRST AVENUE, MS 301, SAN DIEGO, CA 92101
CALL (619) 446-5300 FOR APPOINTMENTS AND (619) 446-5000 FOR INFORMATION.

INFORMATION BULLETIN
211
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This information bulletin describes the minimum requirements for obtaining residential deck permits using the City of San Diego standard plan, ICBO approved plans, or other conventionally framed plans. For clarification of the permit process, visit the Development Services Center, 1222 First Avenue, or call (619) 446-5000.

I. WHEN IS A PERMIT REQUIRED?

A building permit is required for any residential deck more than 30 inches above grade.

II. YOUR OPTIONS FOR SERVICE

Deck permits may be obtained "over-the-counter" when using the City of San Diego standard plan, ICBO approved plans or designed using conventional wood framing. Appointments for plan review are recommended. Call (619) 446-5300 to schedule an appointment. Plans not meeting the criteria for over-the-counter plan check must be submitted for plan review.

See Information Bulletin 501, "Fee Schedule, Construction Permits - Structures," for information on the plan check and combination permit fees.

III. DRAWINGS TO PROVIDE/FORMS TO COMPLETE

Plans must be drawn to scale and must be of sufficient clarity to indicate the location, nature, and extent of the work proposed. Be sure to clearly label all existing and proposed construction.

Plans must show, in detail, that the proposed work will conform to the provisions of the California Building Code, Land Development Code, and all other relevant laws, ordinances, rules and regulations. Zoning information is available at the Development Services Center, 1222 First Avenue, (619) 446-5000, or through our Web Site at:

www.ci.san-diego.ca.us/development-services

Three sets of plans are required and must include:

❑ A. Plot Plan

See Figure 1 for requirements.

❑ B. Foundation and Framing Plans

Provide one of the following:

1. One copy of the City of San Diego standard plan (specifications in this Information Bulletin) with the proposed footing sizes, rafter sizes, and beam sizes highlighted, OR
2. One copy of an International Conference of Building Officials (ICBO) approved plan available from your material supplier, OR
3. Three copies of any other plan. These plans should include a framing plan, foundation plan, elevations, cross-sections, and connection details.

❑ C. Floor Plan

For decks adjacent to a residential building, include a floor plan and show the following information:

1. Use and dimensions of all rooms opening onto the deck.
2. Location and size of all windows and doors from those rooms.
3. Location of smoke detectors.

❑ D. General Application

All projects must be submitted with a General Application. The application for a permit expires within 360 days but can be extended by the Building Official for a period not to exceed 180 days on request by the applicant. Instructions can be found on the reverse side of the application. If you intend to obtain your permit on the same day as plan review, the application must be fully completed. Note: there are *no* exceptions to the Workers' Compensation Insurance requirements. If the property owner is doing the construction work or is hiring a number of different contractors, a separate Owner-Builder Verification form must be signed by the owner at the Development Services Center before the permit can be issued.

Documents referenced in this Information Bulletin

- **General Application, DS-3032**
- **Information Bulletin 112, Minimum Standards for Construction specifications**
- **Information Bulletin 117, Regulations Covering Permit Expiration and Extension**
- **Information Bulletin 122, How to Prepare A Single Family Residential Plot Plan and Vicinity Map**
- **Building Newsletter 23-4**

IV. ADDITIONAL REGULATIONS

A. If deck posts are to be located less than 3'-0" from the property line, (5'-0" for an apartment or condominium) and zoning regulations are permitting, the deck must have a one-hour fire-resistive wall extending to the underside of the deck sheathing on the property line side to provide fire protection. No openings are permitted in this wall and a parapet may be required. See Sections 503.2 and 709.4 of the California Building Code.

B. A deck which is cantilevered beyond an exterior wall can project no more than 12 inches into an area where openings are prohibited if zoning regulations are permitting. Combustible projections must be of one-hour fire-resistive or heavy timber construction. See Section 705 of the CBC.

C. No fire protection is required for the common wall between the dwelling unit and deck as they fall under the same occupancy classification.

D. All electrical wiring and equipment must comply with regulations for exterior installation.

V. CONSTRUCTION SPECIFICATIONS

Following are the minimum construction specifications for decks.

A. The concrete mix for footings must meet a compressive strength of f 'c = 2,000 psi minimum or the following proportions by volume:

1 part Portland cement
2 1/2 parts sand
3 1/2 parts 3/4-inch maximum-size gravel
7 gallons of water maximum per sack of cement

B. Lumber must be Douglas fir-larch No. 2 or better. All lumber must be grade-marked. Joists, girders, and posts may be required to be protected against decay and termites. See Building Newsletter 23-4 and Section 2317 of the California Building Code for details. Single copies are available from the Development Services Center structural engineering receptionist. All posts must be a minimum of 4x4.

C. The post anchorage and bracing details shown on the following sheets have been approved by the City of San Diego for decks.

1. Posts must be anchored at the lower end and must be braced at the upper end using either of the details shown in Figure 3. Decorative-type bracing may be substituted if the same resistance to lateral loading is provided.
2. Post anchorage to footings may be accomplished with a standard approved post base installed per manufacturer's instructions. The footing must be adequate for the load applied. See Section VII below and Table 4.

D. When it is desired to connect and support one side of the deck structure by attaching it directly to the house, the joist spacing and girder sizes may be as shown in Tables 1 and 3. However, the main girder may be replaced on the side attached to the dwelling unit with a 2x6 minimum ledger the same size as the joists or larger and fastened to the studs with two 3/8-inch-diameter by 5-inch-long lag bolts spaced at 16" maximum on center for up to a 16-foot joist span. Two 3/8-inch-diameter by 5-inch-long lag bolts may be spaced at 32" maximum on center when the joist span does not exceed 8'-0".

If a ledger is not used, deck joists should be notched and placed directly on the bottom plate of the dwelling unit. See Information Bulletin 112, "Minimum Standards for Construction Specifications," for further information on notching.

E. Specify deck covering when submitting plans. Note that the panel span rating for plywood subfloor must be appropriate for the joist spacing (i.e., the second number in the panel span rating must be equal to or greater than the deck joist spacing called out in Table 1). Adequate drainage must also be provided.

VI. INSPECTIONS

An Inspection Record Card is issued at the time the permit is obtained. The inspector signs this card as the construction is inspected and approved. The approved plans, the Inspection Record Card, and the permit are important records and should be retained.

A combination permit is active for 180 days. Each inspection scheduled and passed extends the permit 180 days. Permits approaching expiration can be extended under special circumstances. Refer to Information Bulletin 117 for more information on permit expiration and extension.

Inspections are required at the following times:

A. When footings have been excavated but before concrete is placed,

B. When ledgers are attached to an existing structure, and

C. When work is complete. *Note that the project is not legally complete until there is an approved final inspection.* Call (858) 581-7111 to schedule inspections.

VII. TABLES

The tables provided are for simple-span residential decks and include span tables for deck joists and girders, minimum pad footing sizes, and a nailing schedule.

The following assumptions have been made:

Deck live load is 40 psf, deck dead is 8 psf.

All lumber is to be Douglas fir-larch No. 2 or better with minimum design stresses specified in the tables.

All posts are to be 4x4 minimum.

Soil bearing pressure is 1,000 psf minimum.

When the above assumptions do not apply to the proposed design, values in the tables must be adjusted.

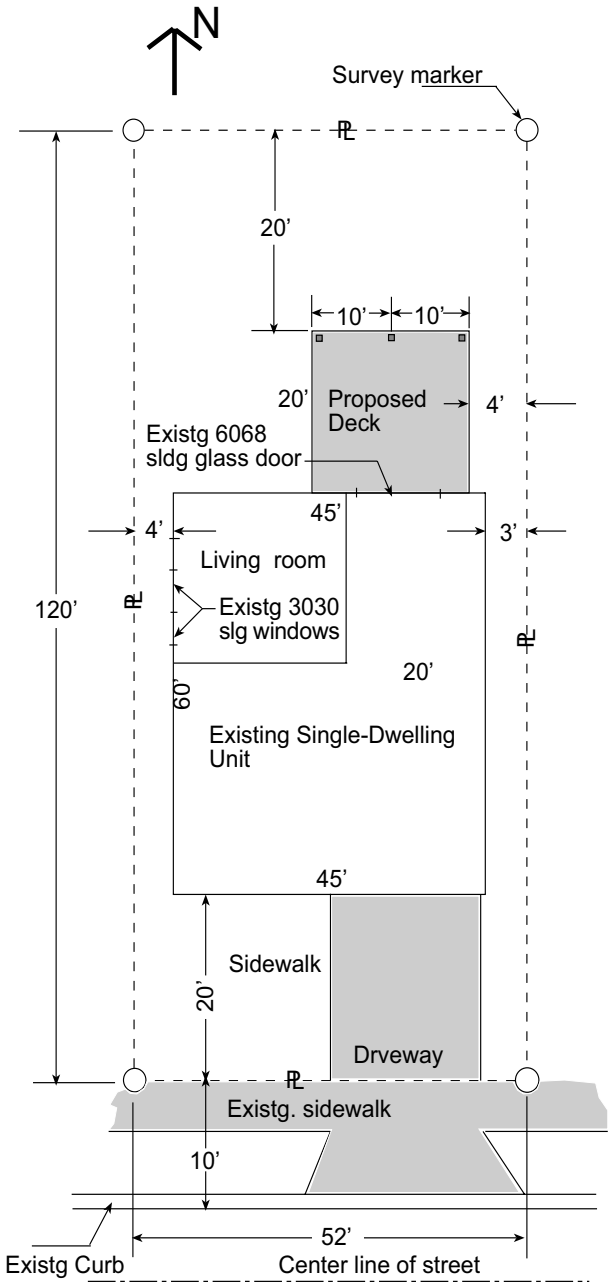
Table 1/Requirements for deck plot plan and partial floor plan

Contact Development and Permit Information at (619) 446-5000 (or through our Web Site) for yard setback and other requirements before drawing plot plan.

Three copies of a plot plan are required for a permit. Information on each of the following items must be included on the plot plan:

1. Name of owner.
2. Address and Accessor's Parcel Number where deck is to be built.
3. Legal description of property.
4. North arrow and scale. Suggested scale: 1 inch equals 20 feet.
5. Boundaries and dimensions of property.*
6. Names of bordering streets.*
7. Width of alley(s), if any.*
8. Location and width of easements. Private easements should be shown on the property's deed.*
9. Location and dimensions of existing buildings, structures, retaining walls, paved parking, and driveways. Include distance from property line.
10. Location and dimensions of proposed deck. Include distance to property line.
11. Location and spacing of all posts and supporting deck.
12. Existing survey hubs, pipes, and similar permanently installed property line identification.

*This information is available from the Records Section, (619) 446-5200.



Scale: 1 Inch equals 20 feet

Figure 1/Typical Deck

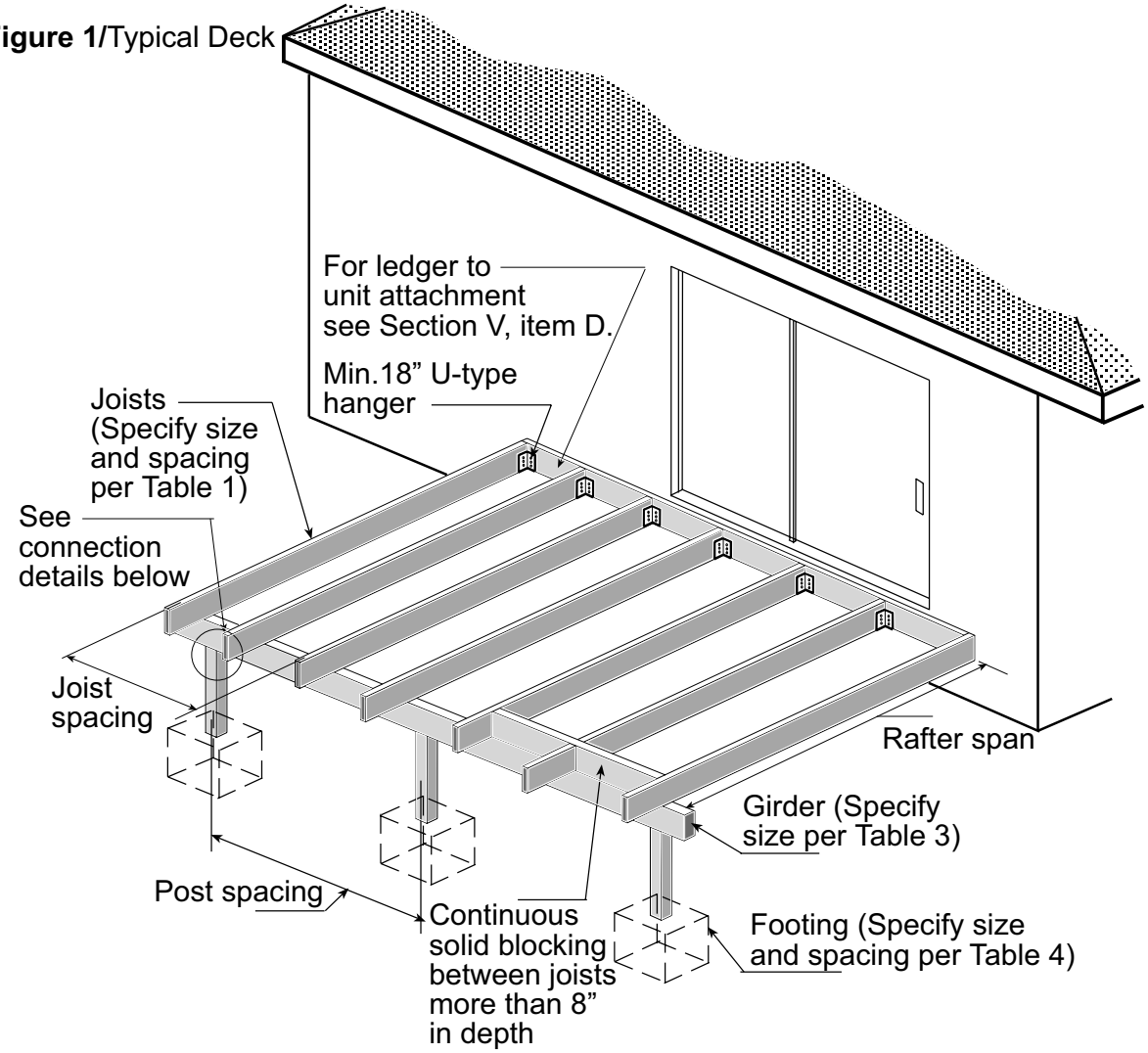
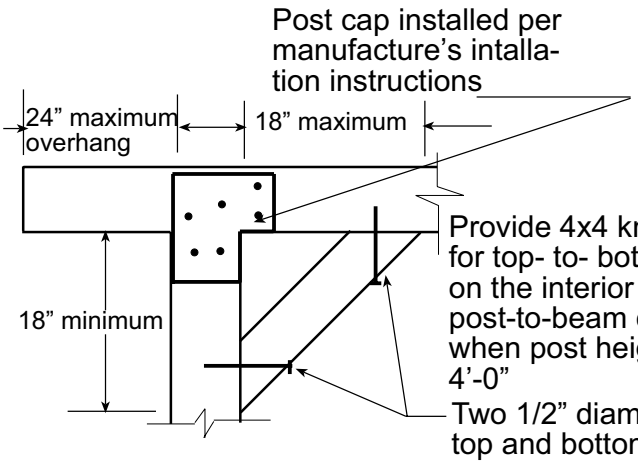


Figure 3/Post-to-girder Connection

Case 2/Connection, interior condition



Case 2/Interior condition

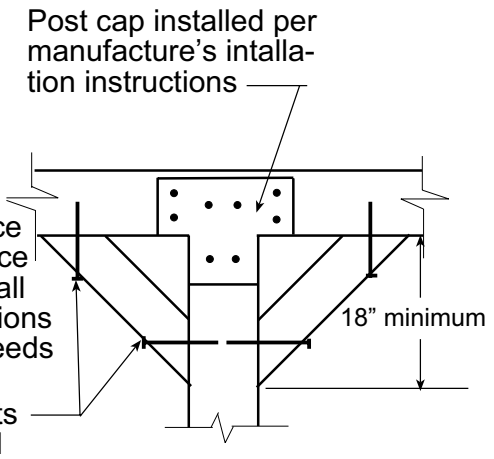


Figure 4/Typical Deck elevation looking parallel to rear of dwelling

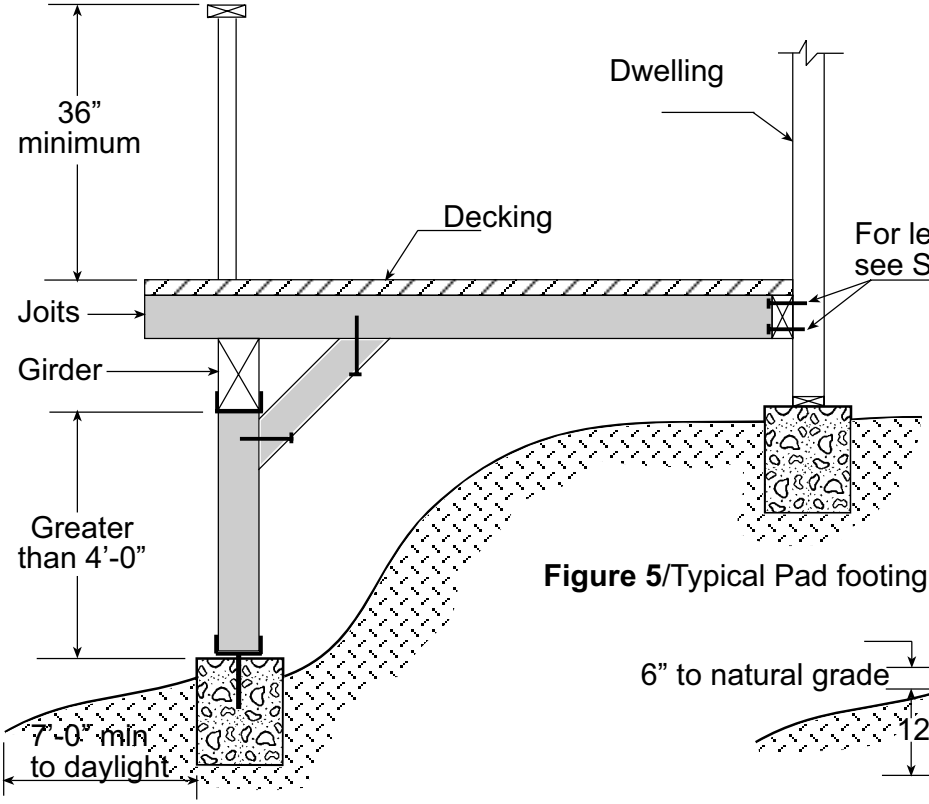


Figure 5/Typical Pad footing

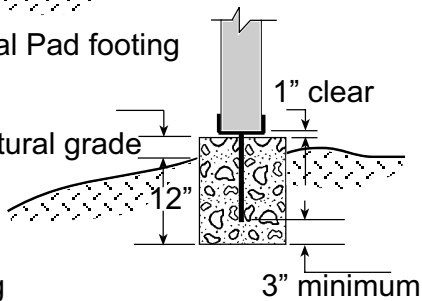


Figure 6/Typical Deck elevation facing rear of dwelling

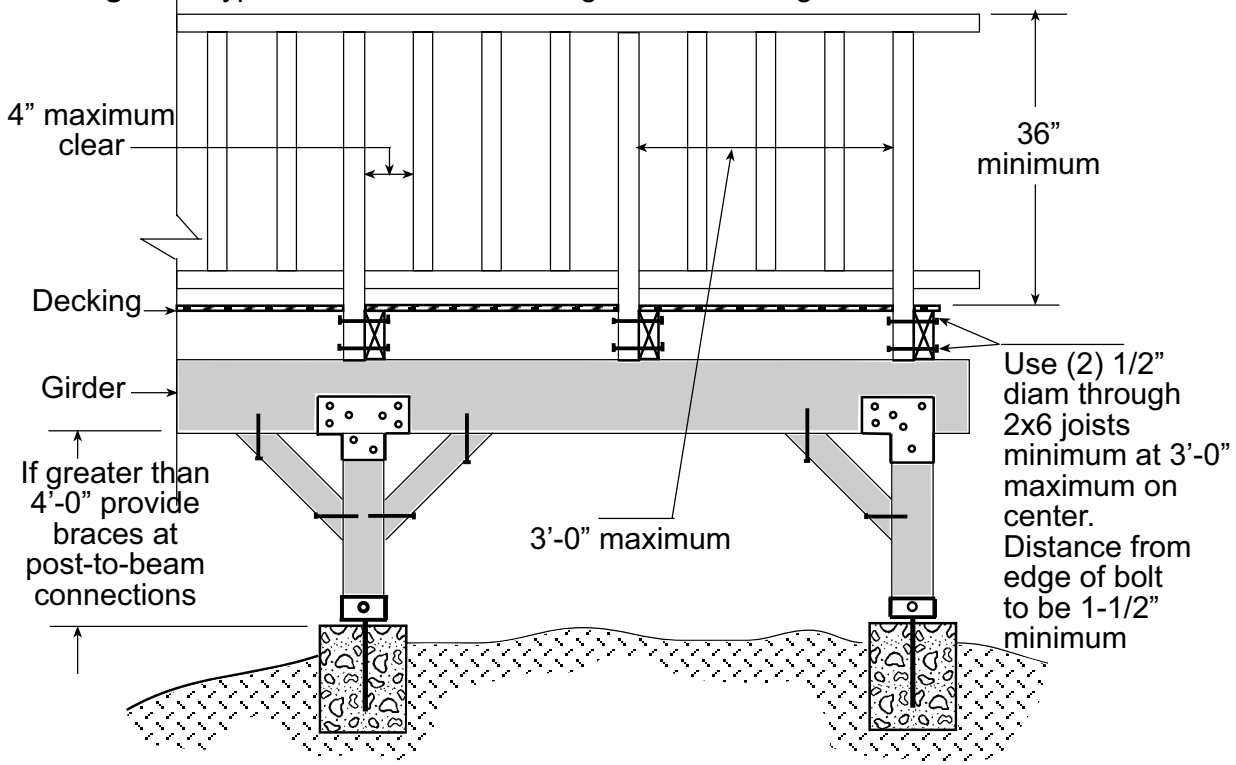


Table 1/Allowable residential deck joist spans [1,2,3,4]

Size (Inches)	Spacing (Inches)	Allowable Spans (Feet and Inches)	
		DF/L #2	Redwood
2x4	12	6'-3"	6'-3"
	16	5'-6"	5'-6"
	24	5'-0"	5'-0"
2x6	12	9'-9"	9'-9"
	16	8'-9"	8'-9"
	24	7'-9"	7'-9"
2x8	12	12'-9"	12'-9"
	16	11'-9"	11'-9"
	24	10'-0"	10'-3"
2x10	12	16'-6"	16'-6"
	16	15'-0"	15'-0"
	24	12'-6"	13'-0"
2x12	12	12'-0"	20'-0"
	16	17'-6"	18'-0"
	24	14'-3"	15'-3"
2x14	12	22'-9"	23'-6"
	16	19'-9"	21'-0"
	24	16'-0"	17'-0"

[1] If joists are within 18 inches of grade, use pressure-treated Douglas fir-larch or Foundation-Grade redwood.
[2] Assume a live load of 40 psf and a dead load of 8 psf.
[3] Assume F(b)=825 psi, F(v)=90 psi, and E=1,200,000 psi for D.F. #2.
[4] Assume F(b)=925 psi, F(v)=80 psi, and E=1,200,000 psi for Redwood.

Table 2/Nailing schedule for decks [1]

Connection	Nails (Box or Common)
Joist to girder, toenail	3-8d
1x6 subfloor to joist--face nail (only for joists 16 inches on center)	2-8d
2-inch subfloor to joist, blind and face nail	2-16d
3/4-inch exterior plywood to joist [2]	8d common 6 inches o.c. edge 12 inches o.c. field [3]
1 1/8-inch exterior tongue-and-groove plywood to girders at 4 feet maximum on center	10d common 6 inches o.c. edge 12 inches o.c. field [3]

[1] Decking within 18 inches of grade should be Foundation-Grade redwood or pressure-treated material.
[2] Second number in panel span rating must be equal to or greater than the deck joist spacing called out in Table 1.
[3] Nailing must be at 6 inches at all intermediate supports where spans are 48 inches or more.

Table 3/Minimum Girder Sizes (Inches)

Post Spacing (Feet)	Joist Span (Feet)						
	4	6	8	10	12	14	16
4	4x4	4x6	4x6	4x8	4x10	4x10	4x14
6	4x6	4x8	4x8	4x10 6x8	4x10 6x8	4x14 6x10	4x14 6x12
8	4x10 6x8	4x10 6x8	4x12 6x10	4x12 6x10	4x14 6x10	4x14 6x12	4x16 6x12
10	4x10 6x10	4x14 6x12	4x14 6x12	4x16 6x14	4x16 6x14	4x18 6x14	 6x16

Table 4/Minimum Square Footing Sizes (Inches) [1, 2]

Post Spacing (Feet)	Joist Span (Feet)							
	4	6	8	10	12	14	16	18
4	12	14	16	18	20	20	22	24
6	14	16	20	22	24	24	28	30
8	16	20	22	24	26	28	30	32
10	18	22	24	28	30	32	34	36

[1] Assume 1,000 psf soil bearing capacity.
[2] The minimum depth for all footings is 12 inches into natural grade.